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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. Docket Number (Optional) PRE-APPEAL BRIEF REQUEST FOR REVIEW CU-8471 I hereby certify that this correspondence is being deposited with the Filed Application Number United States Postal Service with sufficient postage as first class mall in an envelope addressed to "Mall Stop AF, Commissioner for 10/579,274 October 26, 2006 Petents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] December 14, 2011 First Named Inventor Michael A. Reid Signature Art Unit Examiner Typed or printed Eric D Babych 3676 Harcourt, Brad name Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request. This request is being filed with a notice of appeal. The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided. I am the applicant/inventor. Signature assignee of record of the entire interest. Eric D Babych See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96) Typed or printed name attorney or agent of record. 57542 312-427-1300 Registration number Telephone number attorney or agent acting under 37 CFR 1.34. December 14, 2011 Registration number if acting under 37 CFR 1.34 Date NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

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US Serial No. 10/579,274

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Examiner: Harcourt, Brad

Art Unit: 3676

Pre-Appeal Brief Request for Review

The claims in the present application, US Serial No. 10/579,274, have been rejected more than twice.

Based upon the assertions made in the Office Action mailed August 22, 2011 (hereinafter "the Office Action"), Applicant respectfully asserts that the rejections of record are clearly improper and based upon errors in facts. Accordingly, pre-appeal review is respectfully requested.

In the Office Action, Claims 1, 2, 7 to 11, 21, 23 to 25 and 27 are rejected. Claims 1, 2, 9 to 11, 21, 23 and 24 are rejected under 35 U.S.C 102(b) as being anticipated by Carmichael (US Patent No. 6,220,357). Claims 7, 8 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carmichael et al. (US Patent No. 6,220,357) in view of Henderson (US 6,978,840). Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carmichael et al. (US Patent No. 6,220,357).

On page 8 of the Office Action, the Examiner asserts that Claims 3 to 6 and Claim 26 would be allowable if rewritten in independent form including all the limitations of the base claim from which they depend and any intervening claims. The Applicant respectfully disagrees with the rejections above and submits that by amending Claim 1 to include the features of, for example Claim 3, would be overly limiting, in view of the fact that the present application describes at least two embodiments.

Currently pending Claim 1 provides protection for multiple embodiments, where the first embodiment, described at pages 13 to 22, uses a piston arrangement (Claim 3) to control/operate the actuating mechanism to open and close the radial ports and the second embodiment, described at pages 23 to 24, comprises an electronic arrangement comprising sensors, transducers and a motor to control/operate the actuating mechanism to open and close the radial ports.

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On pages 2 to 3 of the Office Action, the Examiner rejects Claim 1 in view of Carmichael et al. Applicant asserts that while Carmichael et al. discloses a downhole tool, it **does not** disclose a plug as recited in Claim 1. Applicant respectfully submits that the claims of the present application are directed to a plug, which is to be understood as a <u>specific</u> type of downhole tool. Applicant respectfully submits that a plug as recited in Claim 1 is to be understood as a device that creates a blockage in the hole in which it is located.

The plug as recited in present Claim 1 is defined as having an axial bore through a portion of the body and a plurality of radial ports through the body.

Therefore, Applicant asserts that the portion of the body that does not include the axial bore provides a solid portion that creates a blockage in the hole in which the device is located and, therefore, constitutes a plug, which acts to block fluid transfer between areas above and below the plug.

Applicant asserts that the downhole tool of Carmichael et al. never creates a blockage in the hole in which it is located because the inner bore is provided axially through the entire length of the body and as such, does not represent a plug in the context of Claim 1. In Carmichael et al., the inner bore always allows fluid transfer from above and below the downhole tool via the inner bore. Carmichael et al. describes an additional transfer of fluid radially through the body; the radial transfer of fluid being restricted and controlled by the status of the radial ports. Claim 1 is directed to allowing only radial transfer of fluid through the body when the ports are open.

Applicant therefore asserts that the downhole tool described in Carmichael et al. does not anticipate the plug as claimed in Claim 1.

Common to both Claim 1 and Carmichael et al. is the provision of radial ports through the body and an actuating mechanism. From Claim 1, it is clear that the radial ports extend through the body in the region of the axial bore.

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On pages 2 and 3 of the Office Action, the Examiner refers to the third embodiment, illustrated in Figures 19 to 30 (described at column 5, line 48 to column 6, line 25) as anticipating the operation of the actuating mechanism to open and close the ports.

On pages 8 and 9 of the Office Action, the Examiner also asserts that, with regard to opening the radial ports, it is inherent from Carmichael that an increase in pressure would have to occur over **some** time period for the actuating mechanism to shift. The Examiner asserts that the operation of the actuator to close (natural state), lock closed (second closed state) and to open (third open state) the radial ports, as recited in Claim 1, is anticipated by Carmichael et al. because the process in Carmichael et al. includes both an increase and a decrease in pressure and, as such, Carmichael et al. satisfies the limitations of present Claim 1.

Referring to Carmichael et al., particularly column 5, line 48 to column 6, line 25, Applicant respectfully submits that Carmichael et al. describes an increase of pressure to move the actuating outer sleeve to a primed and closed configuration when the shear pin is sheared, and upon a subsequent reduction of pressure (bleed off) the sleeve moves under the force/bias of a mechanical spring to open the ports. Applicant asserts that this operation to actuate the sleeve does not correspond with the actuating operation recited in Claim 1 because an increase in pressure does not lead to opening the ports. It is only when the pressure is bled off that the ports open.

Applicant respectfully submits that present Claim 1 clearly recites a criterion for opening the radial ports and also for **ensuring** that the radial ports remain closed. Referring to Claim 1 and the description (see page 19, line 31 to page 20, line 22) it is clear that **only** an increase in pressure within the predetermined range and holding that pressure for a predetermined time can open the radial ports, for example, 1200 to 1800 psi for 10 minutes (see page 20, lines 17 to 22). The ports can be opened from the natural closed state if the plug is run in at the predetermined pressure and held at that pressure for the predetermined time <u>or</u> the ports can be opened from the second closed state where the actuating mechanism is locked.

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Applicant submits that a bleed off of pressure from the locked state is described, but Applicant asserts that this is effective only to displace a piston in the first embodiment such that actuator is primed for movement to open the ports; the actuator only moves when the pressure is increased to the particular [predetermined] pressure range and for a particular [predetermined] time period.

Applicant asserts this criterion for opening the ports is not described in Carmichael et al. Applicant also submits that this increase in pressure is essential to the operation of the plug of Claim 1 because it provides certainty that the plug remains closed unless the opening criterion is met. This also ensures that any testing operations can be performed against the plug and can be performed at any pressure level — even at the predetermined pressure so long as it is not held at that pressure for the predetermined time. Applicant respectfully submits that Carmichael et al. does not teach or suggest this operation/control of the actuating mechanism and, therefore, Applicant respectfully submits that Carmichael et al. does not anticipate Claim 1.

Applicant respectfully submits that Claim 1 is directed to the radial ports opening only when the pressure is increased to the predetermined level and being held for a period of time. Therefore, Applicant respectfully submits that, if the opening criteria described in Carmichael et al. was applied to the plug of Claim 1, the actuating mechanism would take up the second closed state on the increase of pressure and upon subsequent bleed off the actuating mechanism would remain locked in the second state until the definite opening pressure and time criteria is applied. To this end, Applicant respectfully submits that Claim 1 is not anticipated by Carmichael et al.

Referring to page 5 of the Office Action, the Examiner asserts that Claim 21 is also anticipated by Carmichael et al. Applicant respectfully disagrees because present Claim 21 corresponds with present Claim 1 and, as such, recites the method of controlling fluid flow through a plug, which Applicant submits is not taught or suggested in Carmichael et al. Moreover, Claim 21 recites that the method requires

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increasing pressure to the predetermined pressure range and holding the pressure level for a predetermined period of time and Applicant submits that Claim 21 is not anticipated by Carmichael et al. as explained above with regard to Claim 1.

Applicant considers that in order to properly support a rejection under 35

U.S.C 102(b), it must be shown that each and every feature recited in the claim(s) is taught or suggested in the cited prior art document. In view of the remarks above, Applicant respectfully submits that Carmichael et al. does not teach or suggest each and every feature recited in independent Claims 1 and 21. Therefore, Applicant respectfully asserts that independent Claims 1 and 21 are allowable over

Carmichael. Applicant also submits that all claims depending from independent Claims 1 and 21 are also allowable over Carmichael et al. for at least the same reasons given above and for the features that they recite.

Respectfully submitted,

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December 14, 2011

Date

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